

1/8

⑥

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 11-349015

(43)Date of publication of application : 21.12.1999

(51)Int.Cl.

B65D 41/06

B65D 41/04

(21)Application number : 10-157920

(71)Applicant : MITSUBISHI PLASTICS IND LTD

(22)Date of filing : 05.06.1998

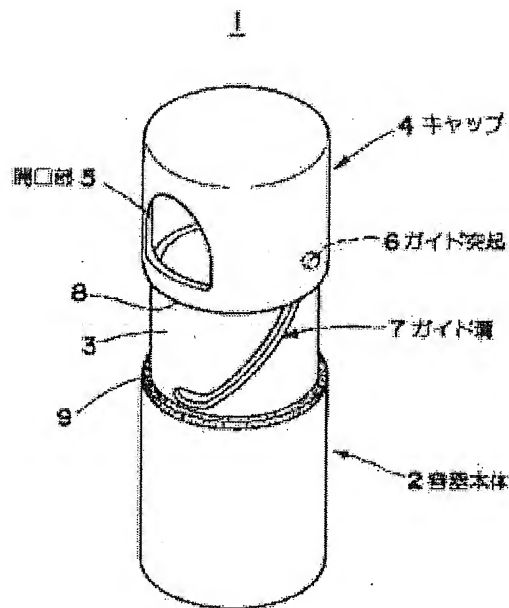
(72)Inventor : OKAMOTO TAKESHI

## (54) PORTABLE VESSEL

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To form a portable vessel that can secure a cup to a close position or an open position securely without damaging the open and close operability of the cap.

**SOLUTION:** A guide projection 6 and a guide groove 7 are provided respectively at the inner circumferential surface of a cap 4 and the outer circumferential surface of the small diameter part 3 of a vessel main body, wherein the guide groove 7 includes a close part to hold the cap 4 at the close position, an open and close slide part for allowing the cap to move to the close position and open position, an open state retaining part for permitting the cap to be retained at the open position, and an extracting part for pulling out the cap from the vessel main body.



### \* NOTICES \*

JPO and INPIT are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.\*\*\* shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

## CLAIMS

### [Claim(s)]

[Claim 1]An end is the portable container which laminated a tubed cap [ pivotable to said opening side of a cylinder-like-object-with-base-like package body which carried out the opening and ] slidable to shaft orientations, provide an opening in a peripheral surface of said cap, and The inner skin, While providing a guide groove which this guide projection engages with either of the package body peripheral faces in slide contact with this inner skin, and slides a

guide projection to the other at it, respectively, said guide groove, A portable container having a stoppage part corresponding to a closing place of a cap, an opening-and-closing slide part which makes it move between opening positions where a closing place and said opening carry out the opening of the cap, an opening attaching part which holds a cap to an opening position, and a sampling part of a direction which samples a cap from a package body.

[Claim 2]The portable container according to claim 1 providing an elastic body between a cap and a package body in a closing place.

---

[Translation done.]

\* NOTICES \*

JPO and INPIT are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.\*\*\*\* shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

---

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention]This invention relates to the portable container of structure suitable for using as a portable ashtray etc. in detail about a portable container.

[0002]

[Description of the Prior Art]What laminated from the former the cap which provided the opening in the side as portable containers, such as a portable ashtray, on the package body which consists of a cylinder-like-object-with-base object so that a slide was possible is used. As for such a portable container, for example, a gestalt ash pan, when making a cap slide to the position in which said opening carries out an opening when throwing away ashes and a cigarette end into a container and throwing away the cigarette end in a container, etc. outside, it is common to demount a cap and to perform it from a container.

[0003]

[Problem(s) to be Solved by the Invention]However, since there is almost no function which locks a cap in a closing place or an opening position in the conventional portable container, While putting in and carrying in the pocket etc., the cap slid carelessly, the opening might open, it might change into the state where it is half-open while opening and using the opening, and the cap might separate from the package body.

[0004]Then, an object of this invention is to provide the portable container which can certainly fix a cap to a closing place or an opening position, without spoiling the switching operation nature of a cap.

[0005]

[Means for Solving the Problem]In order to attain the above-mentioned purpose, a portable container of this invention, An end is the portable container which laminated a tubed cap [ pivotable to said opening side of a cylinder-like-object-with-base-like package body which carried out the opening and ] slidable to shaft orientations, provide an opening in a peripheral surface of said cap, and The inner skin, While providing a guide groove which this guide projection engages with either of the package body peripheral faces in slide contact with this inner skin, and slides a guide projection to the other at it, respectively, said guide groove, A stoppage part corresponding to a closing place of a cap, and an opening-and-closing slide part

which moves a cap between opening positions in which a closing place and said opening carry out an opening. It is characterized by having an opening attaching part which holds a cap to an opening position, and a sampling part of a direction which samples a cap from a package body, and is further characterized by providing an elastic body between a cap and a package body in a closing place.

[0006]

[Embodiment of the Invention]Drawing 1 is a perspective view showing the example of 1 gestalt of the portable container of this invention. This portable container 1 is formed by the package body 2 which consists of a closed-end cylinder body, and the cap 4 laminated on the narrow diameter portion 3 established in the opening side of this package body 2. The cap 4 forms the opening 5 in the peripheral surface of a closed-end cylinder body, and the inside diameter is the same in the outer diameter of said narrow diameter portion 3, and abbreviation, and it is formed so that the cap 4 may be in a pivotable and state slidable to shaft orientations to said narrow diameter portion 3.

[0007]A tip is established in the package body side inner skin of the cap 4 by the guide projection 6 of a surface of a sphere, and in the peripheral face of the narrow diameter portion 3. While the guide groove 7 which said guide projection 6 engages for which and slides is formed, the base of the narrow diameter portion 3 is equipped with the elastic bodies 9, such as rubber which the opening edge 8 contacts, when the cap 4 is closed.

[0008]Said guide groove 7 is provided with the following.

The stoppage part 10 corresponding to the position of said guide projection [ in / as developed and shown in drawing 2 / the closing place of the cap 4 ] 6.

The opening-and-closing slide part 11 which moves the cap 4 between the opening positions in which a closing place and said opening 5 carry out an opening.

The opening attaching part 12 which holds the cap 4 in the position in which the opening 5 carried out the opening.

The sampling part 13 of the direction which samples the cap 4 from the package body 2.

[0009]Said stoppage part 10 is what has a loose inclination about abundance to the line L of the base of the narrow diameter portion 3, When closing the cap 4, while it will be in the state where the opening edge 8 of the cap 4 is forced on the elastic body 9 when the guide projection 6 finally moves along the loose inclination of this stoppage part 10 and sealing performance improves, the cap 4 can be held to a closing place according to frictional force.

[0010]The opening-and-closing slide part 11 has an angle of inclination of about 45 to 60 degrees to said line L, and the cap 4, Since it can progress to said stoppage part 10 in the continuous operation when moving to an opening and closing direction and closing the cap 4, rotating slightly to the package body 2, the cap 4 can be certainly moved to a closing place.

[0011]The fitting recess 12a of the size in which the guide projection 6 inserts the opening attaching part 12, When consisting of the striation parts 12b and 12c which follow the both sides and opening the cap 4, If the cap 6 is further rotated so that the guide projection 6 which moved may be moved along with the striation part 12b to the opening direction termination of the opening-and-closing slide part 11, it is formed so that a click feeling may occur, when the guide projection 6 inserts in the fitting recess 12a.

[0012]The sampling part 13 is formed in the container axial direction, and can remove the cap 4 from the package body 2 by moving the guide projection 6 to the sampling part 13, and drawing out the cap 4 to an axial direction.

[0013]Therefore, since the portable container shown in this example of a gestalt can open and close the cap 4 and moreover changes into the state where the cap 4 was locked in the closing place and the opening position, by pushing and lengthening, rotating the cap 4 slightly, It is lost that the cap 4 opens during carrying, become half-open while in use, or the cap 4 separates from the package body 2.

[0014]What provided the projection in the inner skin of the cap 4 may be used for the guide projection 6, and it could make the peripheral wall hammer out and project to the inner circumference side. It may form as a slot at the time of shaping, and a peripheral wall is changed

after shaping, it may be made to form a slot, a part is pierced, and the guide groove 7 is also good also as slit shape.

[0015]Drawing 3 shows the 2nd example of a gestalt of the guide groove 7, and forms said opening-and-closing slide part 11 in a container axial direction. The switching action of the cap 4 in this case can be performed by pulling out straightly, making it rotate slightly once again, and making the opening attaching part 12 lock, after making it rotate slightly in the portion of the stoppage part 10.

[0016]Drawing 4 forms said opening attaching part 12, the same fitting recess 10a, and the striation part 10b in the closing end while it shows the 3rd example of a gestalt of the guide groove 7 and forms the stoppage part 10 in parallel with said line L. In this case, the cap 4 will be in the state where it was locked by the closing place, when the guide projection 6 fits into the fitting recess 10a through the striation part 10b from the closing direction termination of the opening-and-closing slide part 11.

[0017]Drawing 5 shows the 4th example of a gestalt of the guide groove 7, and forms the opening-and-closing slide part 11 in the example of a gestalt of the above 4th in a container axial direction, and others are formed like the 4th example of a gestalt.

[0018]Drawing 6 shows the 5th example of a gestalt of the guide groove 7, and forms the opening attaching part 12 in crank form. That is, a part for the slot between said fitting recess 12a and the sampling part 13 is formed in the striation part 12d of a container axial direction which goes to a package body 2-way from the fitting recess 12a, and the striation part 12e between the package body side termination of this striation part 12d, and the package body side termination of the sampling part 13. When making an opening position lock the cap 4 by forming in this way, the guide projection 6 can be prevented from rotating to the sampling part 13 exceeding the fitting recess 12a.

[0019]Drawing 7 shows the 6th example of a gestalt of the guide groove 7, and makes the stoppage part 10 only the fitting recess 10a. In this case, by rotating the cap 4 further in the closing place which the guide projection 6 moved to the closing direction termination of the opening-and-closing slide part 11, the guide projection 6 can be made to be able to insert in the fitting recess 10a, and the cap 4 can be locked. The opening attaching part 12 is also made only into the fitting recess 12a, and can make the guide projection 6 insert in the fitting recess 12a by rotating the cap 4 further in the opening position moved to the opening direction termination of the opening-and-closing slide part 11.

[0020]thus -- as the portion which can form the guide groove 7 in various shape, and holds the cap 4 to an opening position or a closing place -- except for combination with an above-mentioned fitting recess, a striation part, or a shallow groove part -- a slot -- multiple times -- it is considered that you also make it crooked in the suitable direction.

[0021]Drawing 8 shows the example which attached the elastic body 9 to the contact part of the opening tip 3a of the narrow diameter portion 3, and the top-plate inner surface 4a of the cap 4. By forming the elastic body 9 in this position, the sealing degree in a package body can be raised compared with the case where it provides in the base of the narrow diameter portion 3.

[0022]Drawing 9 is a perspective view showing other examples of a gestalt of a portable container. This portable container establishes the guide groove 7a in the inner skin of the cap 4 while providing a guide projection in the peripheral face of the narrow diameter portion of said package body 2 formed similarly. At this time, opening and closing and the lock of the cap 4 can be performed by the same operation as said each example of a gestalt by providing the guide projection of a narrow diameter portion in the narrow diameter portion tip side, and forming the guide groove 7a in the shape which made reverse the top and bottom of the guide groove 7 of drawing 2 thru/or drawing 7. When the cap 4 is thin meat, as shown in drawing 9, the portion equivalent to the guide groove 7a will project in a cap peripheral face.

[0023]If a package body and a cap usually use the outside surface of said narrow diameter portion 3, and the inner surface of the cap 4 as a cylindrical shape, can form the outside surface shape of a container in arbitrary shape, such as polygonal shape, but. Movement of the above caps 4 is possible for it, and the shape of the outside surface of the narrow diameter portion 3 and the inner surface of the cap 4 can maintain the engagement state of the guide projection 6

and the guide groove 7, and it can also make this portion into polygonal shape. It turns one and may be made to put a big cap on the package body 2, without forming the narrow diameter portion 3 of the package body 2.

[0024]A container side may form said elastic body 9 in any of a cap side, and it may be provided in both tips the narrow diameter portion base side. As shown in drawing 2, drawing 3, and drawing 6, when the stoppage part 10 is formed on a loose inclination, it is necessary to provide the thing similar to the elastic body 9 or this, in order to hold the cap 4 to a closing state by the frictional force by pressure welding with said elastic body 9 but, and. In the case of others, the elastic body 9 is omissible.

[0025]Although the construction material of a package body or a cap is arbitrary and metal, heat-resistant synthetic resins, etc., such as aluminum, can be used, After carrying out spinning of the laminate sheet which covered layers, such as a crystalline thermoplastic resin layer, for example, 6-nylon etc., on one side of the aluminum plate so that a crystalline thermoplastic resin layer may become outside. By using what heat-treated, printing to an outside surface can be performed easily, and corrosion resistance and shock resistance are also good and, moreover, can be manufactured by low cost.

[0026]

[Effect of the Invention]As explained above, since a cap is certainly fixable to a closing place or an opening position according to the portable container of this invention, it is lost that a cap opens during carrying, become half-open while in use, or a cap separates from a package body.

---

[Translation done.]

#### \* NOTICES \*

JPO and INPIT are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.\*\*\*\* shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

---

#### DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1]It is a perspective view showing the example of 1 gestalt of the portable container of this invention.

[Drawing 2]It is a development view of a guide groove.

[Drawing 3]It is a development view showing the 2nd example of a gestalt of a guide groove.

[Drawing 4]It is a development view showing the 3rd example of a gestalt of a guide groove.

[Drawing 5]It is a development view showing the 4th example of a gestalt of a guide groove.

[Drawing 6]It is a development view showing the 5th example of a gestalt of a guide groove.

[Drawing 7]It is a development view showing the 6th example of a gestalt of a guide groove.

[Drawing 8]It is a sectional view of an important section showing other examples of attachment of an elastic body.

[Drawing 9]It is a perspective view showing other examples of a gestalt of a portable container.

[Description of Notations]

1 [ -- A cap, 5 / -- An opening, 6 / -- A guide projection, 7 / -- A guide groove, 9 / -- An elastic body, 10 / -- A stoppage part, 11 / -- An opening-and-closing slide part, 12 / -- An opening attaching part, 12a / -- A fitting recess, 12b, 12c / -- A striation part, 13 / -- Sampling part ] -- A portable container, 2 -- A package body, 3 -- A narrow diameter portion, 4

[Translation done.]

\* NOTICES \*

JPO and INPIT are not responsible for any damages caused by the use of this translation.

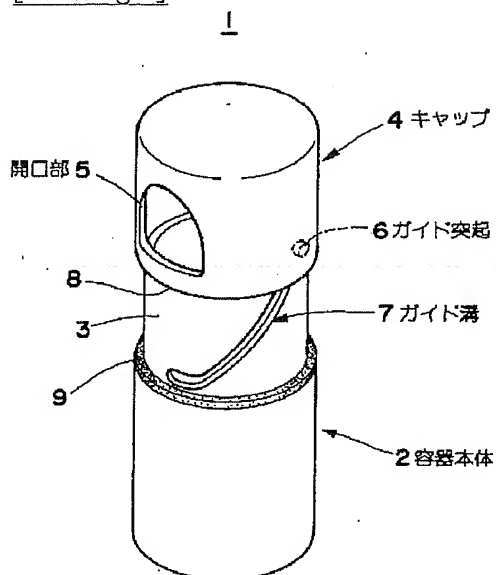
1.This document has been translated by computer. So the translation may not reflect the original precisely.

2.\*\*\* shows the word which can not be translated.

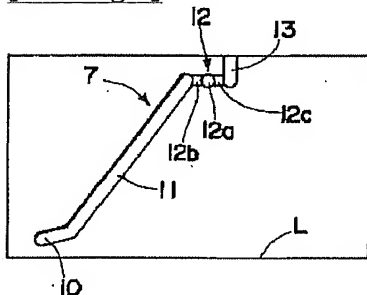
3.In the drawings, any words are not translated.

DRAWINGS

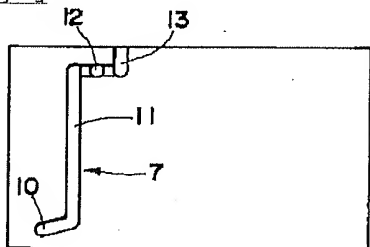
[Drawing 1]



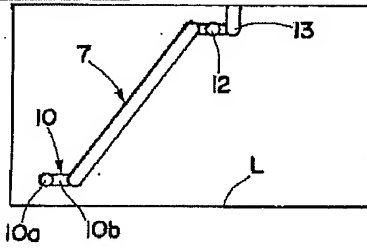
[Drawing 2]



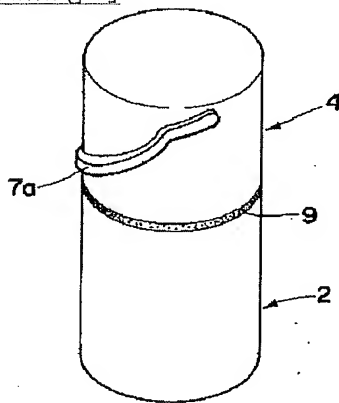
[Drawing 3]



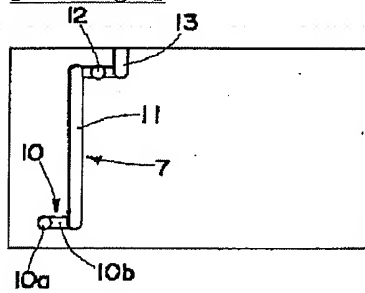
[Drawing 4]



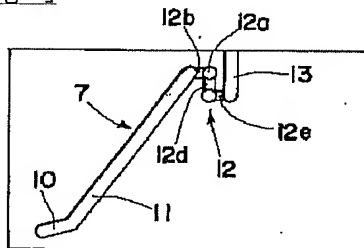
[Drawing 9]



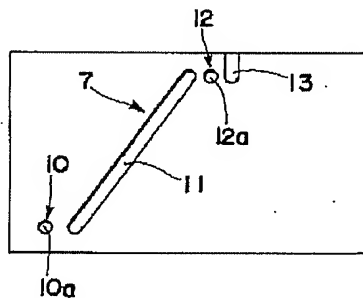
[Drawing 5]



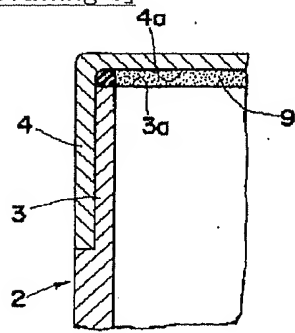
[Drawing 6]



[Drawing 7]



[Drawing 8]



---

[Translation done.]